

Please cancel, without prejudice, claims 1 to 29 in the underlying PCT application. Please also cancel, without prejudice, claims 1 to 29 in the annex to the International Preliminary Examination Report.

Please add the following new claims:

--30. (New) A method of transmitting signaling information between a master station and a slave station, comprising the step of:

transmitting a third message with the signaling information from the master station to the slave station, the third message including information regarding whether data to be sent is processed in one of the master station and an additional master station downstream from and assigned to the slave station to increase reception quality of the data to be sent at the slave station, in accordance with measures relating to a transmission channel between the slave station and at least one of the master station and the additional master station.

31. (New) The method according to claim 30, wherein the master station includes a base station.

32. (New) The method according to claim 30, wherein the slave station includes mobile station.

33. (New) The method according to claim 30, wherein the third message includes information regarding whether data to be sent is processed in the one of the master station and the additional master station in accordance with a change of the slave station from a first radio cell to a second radio cell of a radio network.

34. (New) The method according to claim 30, wherein information regarding a type of processing of the data to be sent is transmitted in the transmitting step with the third message from the master station to the slave station.

35. (New) The method according to claim 30, wherein the third message is transmitted in the transmitting step, with regard to a single transmission channel for transmission of the data to be sent.

36. (New) The method according to claim 30, wherein the third message is transmitted in the transmitting step with regard to multiple transmission channels for transmission of the data to be sent when a type of processing in the multiple transmission channels is the same.

37. (New) The method according to claim 30, wherein information regarding whether the data to be sent from the one of the master station and the additional master station is emitted by one of a single antenna and multiple antennas is transmitted in the transmitting step with the third message.

38. (New) The method according to claim 30, wherein information regarding whether the data to be sent is predistorted in one of the master station and the additional master station is transmitted in the transmitting step with the third message.

39. (New) The method according to claim 38, wherein information regarding whether predistortion is performed as a function of an estimated pulse response of at least one time slot transmission channel between the slave station and one of the master station and the additional master station is transmitted in the transmitting step with the third message.

40. (New) The method according to claim 30, further comprising the step of:  
transmitting a second message from the slave station to the master station, the second message including information regarding which types of processing of the data to be sent by the master station are supported by the slave station to detect the data to be sent, the second message including the signaling information before the third message.

41. (New) The method according to claim 40, further comprising the step of:  
processing the data to be sent in the master station as a function of the second message in a manner supported by the slave station for detecting the data to be sent.

42. (New) The method according to claim 41, further comprising the step of:  
transmitting the processed data to be sent in a transmission channel dedicated only to a connection between the master station and the slave station.

43. (New) The method according to claim 41, wherein the signaling information is transmitted in the transmitting step in a processed form from the master station to the slave station at an earliest when, in accordance with the second message, the types of processing supported by the slave station are known by the master station, the processing step occurring in a manner supported by the slave station, and when the third message has been transmitted to the slave station.

44. (New) The method according to claim 30, further comprising the step of:  
transmitting a first message from the master station to the slave station, the first message including information regarding which ones of at least one type of processing of the data to be sent are supported by the master station and the signaling information from the master station to the slave station, the first message transmitted in the first message transmitting step when the third message is transmitted in the third transmitting step.

45. (New) The method according to claim 44, wherein the first message is transmitted in the first message transmitting step in a transmission channel accessible to a plurality of slave stations.

46. (New) The method according to claim 30, wherein the signaling information is transmitted in the transmitting step in a processed form at an earliest after transmission of the third message to the slave station from the one of the master station and the additional master station, and the signaling information is transmitted in a transmission channel accessible to a plurality of slave stations.

47. (New) A slave station, comprising:  
a first evaluation arrangement configured to analyze a third message from a master station to determine whether data to be sent to the slave station from one of the master station and an additional master station downstream from and assigned to the slave station has been processed by one of the master station and the additional master station to increase a reception quality in accordance with measures relating to a transmission channel between the slave station and at least one of the master station and the additional master station.

48. (New) The slave station according to claim 47, wherein the master station includes a base station.

49. (New) The slave station according to claim 47, wherein the first evaluation arrangement is configured to analyze the third message to determine a type of processing that has been used by one of the master station and the additional master station on the data to be sent.

50. (New) The slave station according to claim 44, further comprising a first selection arrangement configured to select, as a function of the third message analyzed by the first evaluation arrangement, a detection arrangement configured to detect the data to be sent by one of the master station and the additional master station.

51. (New) The slave station according to claim 47, further comprising a first message generation arrangement configured to generate a second message as a function of ones of at least one type of processing of data to be sent by the master station that are supported by the slave station and to transmit the second message to the master station.

52. (New) The slave station according to claim 51, wherein the first evaluation arrangement is configured to analyze a first message from the master station to determine which ones of at least one type of processing of signals to be sent are supported by the master station, and the first evaluation arrangement is configured to check whether the ones of at least one type of processing supported by the master are supported by the slave station, and the first evaluation arrangement is configured to activate the first message generation arrangement so that at least one type of processing supported by both the master station and the slave station is indicated in the second message.

53. (New) A master station, comprising:

a second message generation arrangement configured to generate a third message including information regarding that data to be sent is processed in one of the master station and an additional master station downstream from and assigned to a slave station to increase a reception quality of the data to be sent at the slave station in accordance with measures relating to a transmission channel between the slave station and at least one of the master

station and the additional master station, the second message generation arrangement configured to transmit the third message to the slave station.

54. (New) The master station according to claim 53, wherein the slave station includes a mobile station.

55. (New) The master station according to claim 53, wherein the second message generation arrangement is configured to indicate in the third message a type of processing performed on the data to be sent in one of the master station and the additional master station.

a 56. (New) The master station according to claim 53, wherein the second message generation arrangement is configured to generate, before transmission of the third message, a first message including information regarding which ones of at least one type of processing of data to be sent by the master station are supported by the master station, the second message generation arrangement configured to transmit the first message to the slave station.

57. (New) The master station according to claim 53, further comprising a second evaluation arrangement configured to analyze a second message received from the slave station to determine which ones of at least one type of processing of signals to be sent are supported by the slave station, the second evaluation arrangement configured to check whether the ones of the at least one type of processing supported by the slave station are supported by the master station, the second evaluation arrangement configured to select at least one type of processing that is supported by both the master station and the slave station, the second evaluation arrangement configured to activate the second message generation arrangement so that the at least one selected type of processing is indicated in the third message, and the second evaluation arrangement configured to activate a processing unit to process the data to be sent in accordance with the at least one selected type of processing.

58. (New) The master station according to claim 57, wherein the processing unit is configured to perform a predistortion.

59. (New) The master station according to claim 58, wherein the predistortion includes a joint predistortion.

60. (New) The master station according to claim 57, wherein the processing unit is configured to emit the signals to be sent over multiple antennas.

61. (New) A method of transmitting a message element from a master station to a slave station, comprising the step of:

transmitting information with the message element regarding whether data to be sent is processed by one of the master station and an additional master station downstream from and assigned to the slave station to increase a reception quality at the slave station in accordance with measures relating to a transmission channel between the slave station and as least one of the master station and the additional master station.

62. (New) The method according to claim 61, wherein the master station includes a base station.

63. (New) The method according to claim 61, wherein the slave station includes a mobile station.

64. (New) The method according to claim 61, wherein the method includes an exchange of signaling information.

65. (New) The method according to claim 61, wherein information regarding which ones of at least one type of processing are used on the data to be sent is transmitted in the transmitting step with the message element.

66. (New) A method of transmitting a message element from a master station to a slave station, comprising the step of:

transmitting information with the message element regarding which ones of at least one type of processing of signals to be sent are supported by one of the master station and an additional master station downstream from and assigned to the slave station to increase a reception quality at the slave station in accordance with measures relating to a transmission channel between the slave station and at least one of the master station and the additional master station.